

SEQUENCE LISTING

<110> Yu, Su-May

<120> PLANT MYB GENES

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<150> US 60/399,999

<151> 2002-07-31

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<212> DNA

<213> Oryza sativa (japonica cultivar-group)

<220>

<221> CDS

<222> (20)...(937)

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gcg	gcg	gcg	gcg	gcg	gcg	gcg	tgg	acc	agg	gag	gac	gac	aag	gcg	ttc	gag	100
Ala	Ala	Ala	Ala	Ala	Ala	Ala	Trp	Thr	Arg	Glu	Asp	Asp	Lys	Ala	Phe	Glu	
			15						20					25			
aac	gcg	ctc	gcg	gct	tgc	gcg	gcg	ccg	ccg	ccc	gcg	gac	gga	ggc	gcg		148
Asn	Ala	Leu	Ala	Ala	Cys	Ala	Ala	Pro	Pro	Pro	Ala	Asp	Gly	Gly	Ala		
			30					35					40				
ccc	gac	gac	gac	tgg	ttc	gcc	gcg	ctc	gcc	gcg	agc	gtg	ccc	ggg	gcg		196
Pro	Asp	Asp	Asp	Trp	Phe	Ala	Ala	Leu	Ala	Ala	Ser	Val	Pro	Gly	Ala		
			45					50				55					
agg	tcg	gcg	gag	gag	gtg	cgg	agg	cac	tac	gag	gcg	ctg	gtg	gag	gac		244
Arg	Ser	Ala	Glu	Glu	Val	Arg	Arg	His	Tyr	Glu	Ala	Leu	Val	Glu	Asp		
			60					65				70			75		
gtc	gcg	gcc	atc	gac	gcg	ggc	cgc	gtc	ccg	ctc	ccg	cgc	tac	gcc	ggg		292
Val	Ala	Ala	Ile	Asp	Ala	Gly	Arg	Val	Pro	Leu	Pro	Arg	Tyr	Ala	Gly		
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gag	gag	tcc	gcg	gcg	ccg	ccc	gac	gga	gcc	gga	gcc	gcc	gcc	gcc	gcg		340
Glu	Glu	Ser	Ala	Ala	Pro	Pro	Asp	Gly	Ala	Gly	Ala	Ala	Ala	Ala	Ala		
			95					100					105				
tcc	aag	gac	ggc	gga	cac	cgg	cgc	gac	gag	cgc	aag	ggc	ggc	ggc	ggc		388
Ser	Lys	Asp	Gly	Gly	His	Arg	Arg	Asp	Glu	Arg	Lys	Gly	Gly	Gly	Gly		

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Gly Tyr Asp Gly Gly Lys Ser Cys Ser Lys Ala Glu Gln Glu Arg Arg			
125	130	135	
aag ggc atc cca tgg acg gag gaa gag cac agg ctg ttc ttg ctg ggg			484
Lys Gly Ile Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu Gly			
140	145	150	155
ctg gac aag ttc ggc aag ggg gac tgg cgg agc atc tcg cgc aac ttc			532
Leu Asp Lys Phe Gly Lys Gly Asp Trp Arg Ser Ile Ser Arg Asn Phe			
160	165	170	
gtc atc tcg cgg acg cca acg cag gtg gcg agc cac gcg cag aag tac			580
Val Ile Ser Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr			
175	180	185	
ttc atc cgc ctc aac tcc atg aac cgc gac cgc cgc cgc tcc agc atc			628
Phe Ile Arg Leu Asn Ser Met Asn Arg Asp Arg Arg Arg Ser Ser Ile			
190	195	200	
cac gac atc acc agc gtc acc gcc ggc gat cag gtc gcc gcg cag cag			676
His Asp Ile Thr Ser Val Thr Ala Gly Asp Gln Val Ala Ala Gln Gln			
205	210	215	
ggc gcc ccg atc acc ggc cac cag gcc acg ggc aac ccc gcg gcg gcg			724
Gly Ala Pro Ile Thr Gly His Gln Ala Thr Gly Asn Pro Ala Ala Ala			
220	225	230	235
gcg ctg ggc ccg ccg ggc atg aag cac cac cac cac cac ccg ggc			772
Ala Leu Gly Pro Pro Gly Met Lys His His His His His Pro Gly			
240	245	250	
ggc gcg ccg ccg ccc atg ccc atg tac agc gcc gcg ccc atg ggc cac			820
Gly Ala Pro Pro Pro Met Pro Met Tyr Ser Ala Ala Pro Met Gly His			
255	260	265	
ccc gtc gcc ggc cac atg gtg ccc gcc gcc gtc ggc acg ccg gtg gtg			868
Pro Val Ala Gly His Met Val Pro Ala Ala Val Gly Thr Pro Val Val			
270	275	280	
ttc ccg ccg ggc cac gcg ccg tac gtc gtg ccc gtc ggc tac ccg gcg			916
Phe Pro Pro Gly His Ala Pro Tyr Val Val Pro Val Gly Tyr Pro Ala			
285	290	295	
cct ccg gcc aag atg cac caa tgacgcgccca tggacggaca tgagcagcat			967
Pro Pro Ala Lys Met His Gln			
300	305		
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tcgtccctga tcatcttggt cttctcaca tctcactaat gtaaacatac atagatcaga			1087
tgccaagagt gcagggattg gggattaaag gcgaataagt aaagtatttt gctgactgtt			1147
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agcggccttc cgtacgtggt ggcgcgcgac gatgatcttg caggggttgc aattagggat			1267
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<213> Oryza sativa (japonica cultivar-group)

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                               Met Pro Asn Leu Thr Ser Ile
                               1               5

gac ccg ctg ccg gtg ccg gcc gac ggc ggc aaa cgg cgc gcc tcc gac      160
Asp Pro Leu Pro Val Pro Ala Asp Gly Gly Lys Arg Arg Ala Ser Asp
          10               15               20

gac tcc gag ctc gcc tcc ggc cag cag aag cgc cgc cgc cgc aag gtg      208
Asp Ser Glu Leu Ala Ser Gly Gln Gln Lys Arg Arg Arg Arg Lys Val
          25               30               35

cag gag agg aag aaa ggg gta cca tgg act gag gag gag cac aag aaa      256
Gln Glu Arg Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Lys Lys
          40               45               50               55

ttc ctg gaa ggg ctg agg cag ctg ggg aaa ggg gac tgg aga ggc atc      304
Phe Leu Glu Gly Leu Arg Gln Leu Gly Lys Gly Asp Trp Arg Gly Ile
          60               65               70

tcc aag aac ttt gtg acc agc agg acg gcg act cag gtg gcc agc cac      352
Ser Lys Asn Phe Val Thr Ser Arg Thr Ala Thr Gln Val Ala Ser His
          75               80               85

gcc cag aag tac ttc ctc ccg cag acc aac cct ggc aaa aag aag cgc      400
Ala Gln Lys Tyr Phe Leu Arg Gln Thr Asn Pro Gly Lys Lys Lys Arg
          90               95               100

cgg gcc agc ctc ttt gat gtt gtt gct gag tgc agt gat gat caa ctt      448
Arg Ala Ser Leu Phe Asp Val Val Ala Glu Cys Ser Asp Asp Gln Leu
          105               110               115

cca agt cct cag agt gtt gga act aag cct cct acc cag gat ata att      496
Pro Ser Pro Gln Ser Val Gly Thr Lys Pro Pro Thr Gln Asp Ile Ile
          120               125               130               135

cat aca gat cgc ggc gat gtc ccg ata cta agc tat cca gtt gct aga      544
His Thr Asp Arg Gly Asp Val Pro Ile Leu Ser Tyr Pro Val Ala Arg
          140               145               150

ggc ttt aga ggc gat agc gtg cag gtt gat gaa cta act gaa tat gtg      592
Gly Phe Arg Gly Asp Ser Val Gln Val Asp Glu Leu Thr Glu Tyr Val
          155               160               165

aag aga tta aag gcc gcc gag gac atg tcg ctc tcc atg atc tct gga      640

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Leu Glu Met Ala Ser Ser Ser Ile Ser Ser Leu Glu Leu Ser Ile Ala	
185 190 195	
ccc tct cat ttg cgg atc gac ggg gcc atc aag ggg ctg gga tcc aaa	736
Pro Ser His Leu Arg Ile Asp Gly Ala Ile Lys Gly Leu Gly Ser Lys	
200 205 210 215	
ccc aat ttt ccc ccg aag gaa ttt gga tcg gct tca gct act gtt ttt	784
Pro Asn Phe Pro Pro Lys Glu Phe Gly Ser Ala Ser Ala Thr Val Phe	
220 225 230	
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Cys Pro Pro Cys Cys Cys Leu Leu Leu Leu Phe Phe Phe Phe Phe Phe	
235 240 245	
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Ala Gly Val Val Cys Cys Cys Cys Cys Cys Ser Cys His Ala Asn Phe	
250 255 260	
gta ttt ggg tca tgt ggg gtt tct ttc acc agt ttt ata taatacagag	929
Val Phe Gly Ser Cys Gly Val Ser Phe Thr Ser Phe Ile	
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<213> Oryza sativa (japonica cultivar-group)	
<220>	
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Met Thr Arg Arg Cys Ser His Cys Ser His Asn Gly His Asn	
1 5 10	
tgc cgg acg tgc ccc aac cgc ggg gtc aag atc ttc ggg gtg cgc ctc	156
Ser Arg Thr Cys Pro Asn Arg Gly Val Lys Ile Phe Gly Val Arg Leu	
15 20 25 30	
acc gat ggc tcc atc cgc aag agc gcc agc atg ggg aac ctc tcc ctc	204
Thr Asp Gly Ser Ile Arg Lys Ser Ala Ser Met Gly Asn Leu Ser Leu	
35 40 45	
ctc tcc tcc gcc gcc gga tcc acc agc ggc ggc gcc tcc ccc gcc gac	252
Leu Ser Ser Ala Ala Gly Ser Thr Ser Gly Gly Ala Ser Pro Ala Asp	
50 55 60	

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cct tgg act gaa gaa gaa cac cgg agg ttt ttg ctt gga ttg caa aag Pro Trp Thr Glu Glu Glu His Arg Arg Phe Leu Leu Gly Leu Gln Lys 95 100 105 110	396
ctt ggc aaa ggt gat tgg cga gga atc tct cgt aat ttc gtg gtc tca Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn Phe Val Val Ser 115 120 125	444
aga aca cct act caa gta gcc agt cat gct cag aaa tat ttt ata cgc Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Ile Arg 130 135 140	492
caa tcc aat atg acc aga agg aaa aga agg tct agc ctt ttt gac atg Gln Ser Asn Met Thr Arg Arg Lys Arg Arg Ser Ser Leu Phe Asp Met 145 150 155	540
gtg cca gat gag tct atg gac ctt cca cca ctt cct gga ggt caa gaa Val Pro Asp Glu Ser Met Asp Leu Pro Pro Leu Pro Gly Gly Gln Glu 160 165 170	588
cca gag acc caa gta tta aat caa cca gca cta cct cca ccg aag gag Pro Glu Thr Gln Val Leu Asn Gln Pro Ala Leu Pro Pro Pro Lys Glu 175 180 185 190	636
gaa gag gag gta gat tct atg gag tca gat act tct gcc gtt gca gag Glu Glu Glu Val Asp Ser Met Glu Ser Asp Thr Ser Ala Val Ala Glu 195 200 205	684
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cca gtg att gtt cca gct tat ttc tcg ccc ttt ttg caa ttc tcg gtt Pro Val Ile Val Pro Ala Tyr Phe Ser Pro Phe Leu Gln Phe Ser Val 225 230 235	780
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cat gag att gtc aag cct gtt cca gtt cat tca aag agc cca atc aac His Glu Ile Val Lys Pro Val Pro Val His Ser Lys Ser Pro Ile Asn 255 260 265 270	876
gtt gat gag ctt gtt ggc atg tcg aag ctc agc ata gga gag tcc aat Val Asp Glu Leu Val Gly Met Ser Lys Leu Ser Ile Gly Glu Ser Asn 275 280 285	924
caa gag aca gag tct act tct ctt tca tta aat ctg gta gga ggt caa	972

Gln Glu Thr Glu Ser Thr Ser Leu Ser Leu Asn Leu Val Gly Gly Gln
 290 295 300

aat aga caa tca gct ttc cat gca aat cca cca aca agg gca cag gca 1020
 Asn Arg Gln Ser Ala Phe His Ala Asn Pro Pro Thr Arg Ala Gln Ala
 305 310 315

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 cttgtttttt tgtttttatt ttaagattaa ccgttctccg tagtctgtat catgtgctgt 1140
 aagttatgct atgtatgaat gtatctgttg tttgtctggc acacatgata aatcactcta 1200
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<210> 4

<211> 918

<212> DNA

<213> *Oryza sativa* (japonica cultivar-group)

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 ggagggcgcg ccgacgacga ctggttcgcc gcgctcgccg cgagcgtgcc cggggcgagg 180
 tcggcgagg aggtgcggag gcactacgag gcgctgggtg aggacgtcgc ggccatcgac 240
 gcggggcgcg tcccgctccc gcgctacgcc ggggaggagt ccgcggcgcc gcccgacgga 300
 gccggagccg ccgcgcgcgc gtccaaggac ggcggaacac ggcgcgacga gcgcaagggc 360
 ggcgggcgcg ggtacgacgg cggaagagc tgctccaagg cggaacgga gaggcgcaag 420
 ggcatcccat ggacggagga agagcacagg ctgttcttgc tggggctgga caagtccggc 480
 aagggggact ggcgagcat ctgcgcgaac ttcgtcatct cgcggaacgc aacgcagggtg 540
 gcgagccacg cgcagaagta cttcatccgc ctcaactcca tgaaccgcga ccgcgcgcgc 600
 tccagcatcc acgacatcac cagcgtcacc gccggcgatc aggtcgcgc gcagcagggc 660
 gccccgatca ccggccacca ggccacgggc aaccccgcg cggcggcgct gggcccgccg 720
 ggcatgaagc accaccacca ccaccaccgc ggcgggcggc cgccgcccac gcccatgtac 780
 agcgccgcgc ccatgggcca ccccgtcgcc ggccacatgg tgcccgccgc cgtcggcacg 840
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 ccggccaaga tgcaccaa 918

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<211> 828

<212> DNA

<213> *Oryza sativa* (japonica cultivar-group)

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 aggagctgg ggaaagggga ctggagaggc atctccaaga actttgtgac cagcaggacg 240
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 aagaagcgcc gggccagcct ctttgatgtt gttgctgagt gcagtgatga tcaactcca 360
 agtccctcaga gtgttggaac taagcctcct acccaggata taattcatac agatcgcggc 420
 gatgtcccga tactaagcta tccagttgct agaggcttta gaggcgatag cgtgcagggt 480
 gatgaactaa ctgaatatgt gaagagatta aaggccgcgc aggacatgtc gctctccatg 540
 atctctggac tggaaatggc atcatcatcc atcagcagtc tagagctcag tatcgcgccc 600
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 aagggaattg gatcggttc agctactgtt ttttgtcccc cctgttgttg tttgttgtg 720
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 <212> DNA
 <213> Oryza sativa (japonica cultivar-group)

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 gccgacggcc ccgacgcgc cccaccgcc gccgacggct acgcctccga cgacttcgtc 240
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 cgtaatttcg tggctcaag aacacctact caagtagcca gtcattgctca gaaatatttt 420
 atacgccaat ccaatatgac cagaaggaaa agaaggtcta gcctttttga catggtgcca 480
 gatgagtcta tggaccttcc accacttcct ggaggtcaag aaccagagac ccaagtatta 540
 aatcaaccag cactacctcc accgaaggag gaagaggagg tagattctat ggagtcagat 600
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 gttccagttc attcaaagag cccaatcaac gttgatgagc ttgttggcat gtcgaagctc 840
 agcataggag agtccaatca agagacagag tctacttctc tttcattaaa tctggttagga 900
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 <212> PRT
 <213> Oryza sativa (japonica cultivar-group)

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 35 40 45
 Phe Ala Ala Leu Ala Ala Ser Val Pro Gly Ala Arg Ser Ala Glu Glu
 50 55 60
 Val Arg Arg His Tyr Glu Ala Leu Val Glu Asp Val Ala Ala Ile Asp
 65 70 75 80
 Ala Gly Arg Val Pro Leu Pro Arg Tyr Ala Gly Glu Glu Ser Ala Ala
 85 90 95
 Pro Pro Asp Gly Ala Gly Ala Ala Ala Ala Ser Lys Asp Gly Gly
 100 105 110
 His Arg Arg Asp Glu Arg Lys Gly Gly Gly Gly Gly Tyr Asp Gly Gly
 115 120 125
 Lys Ser Cys Ser Lys Ala Glu Gln Glu Arg Arg Lys Gly Ile Pro Trp
 130 135 140
 Thr Glu Glu Glu His Arg Leu Phe Leu Leu Gly Leu Asp Lys Phe Gly
 145 150 155 160
 Lys Gly Asp Trp Arg Ser Ile Ser Arg Asn Phe Val Ile Ser Arg Thr
 165 170 175
 Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Ile Arg Leu Asn
 180 185 190
 Ser Met Asn Arg Asp Arg Arg Arg Ser Ser Ile His Asp Ile Thr Ser
 195 200 205
 Val Thr Ala Gly Asp Gln Val Ala Ala Gln Gln Gly Ala Pro Ile Thr
 210 215 220

Gly His Gln Ala Thr Gly Asn Pro Ala Ala Ala Ala Leu Gly Pro Pro
 225 230 235 240
 Gly Met Lys His His His His His His Pro Gly Gly Ala Pro Pro Pro
 245 250 255
 Met Pro Met Tyr Ser Ala Ala Pro Met Gly His Pro Val Ala Gly His
 260 265 270
 Met Val Pro Ala Ala Val Gly Thr Pro Val Val Phe Pro Pro Gly His
 275 280 285
 Ala Pro Tyr Val Val Pro Val Gly Tyr Pro Ala Pro Pro Ala Lys Met
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 His Gln
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<210> 8

<211> 276

<212> PRT

<213> *Oryza sativa* (japonica cultivar-group)

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 35 40 45
 Thr Glu Glu Glu His Lys Lys Phe Leu Glu Gly Leu Arg Gln Leu Gly
 50 55 60
 Lys Gly Asp Trp Arg Gly Ile Ser Lys Asn Phe Val Thr Ser Arg Thr
 65 70 75 80
 Ala Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg Gln Thr
 85 90 95
 Asn Pro Gly Lys Lys Lys Arg Arg Ala Ser Leu Phe Asp Val Val Ala
 100 105 110
 Glu Cys Ser Asp Asp Gln Leu Pro Ser Pro Gln Ser Val Gly Thr Lys
 115 120 125
 Pro Pro Thr Gln Asp Ile Ile His Thr Asp Arg Gly Asp Val Pro Ile
 130 135 140
 Leu Ser Tyr Pro Val Ala Arg Gly Phe Arg Gly Asp Ser Val Gln Val
 145 150 155 160
 Asp Glu Leu Thr Glu Tyr Val Lys Arg Leu Lys Ala Ala Glu Asp Met
 165 170 175
 Ser Leu Ser Met Ile Ser Gly Leu Glu Met Ala Ser Ser Ser Ile Ser
 180 185 190
 Ser Leu Glu Leu Ser Ile Ala Pro Ser His Leu Arg Ile Asp Gly Ala
 195 200 205
 Ile Lys Gly Leu Gly Ser Lys Pro Asn Phe Pro Pro Lys Glu Phe Gly
 210 215 220
 Ser Ala Ser Ala Thr Val Phe Cys Pro Pro Cys Cys Cys Leu Leu Leu
 225 230 235 240
 Leu Phe Phe Phe Phe Phe Phe Ala Gly Val Val Cys Cys Cys Cys Cys
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 260 265 270
 Thr Ser Phe Ile
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<210> 9

<211> 318
 <212> PRT
 <213> *Oryza sativa* (japonica cultivar-group)

<400> 9

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      35      40      45
Ser Ala Ala Gly Ser Thr Ser Gly Gly Ala Ser Pro Ala Asp Gly Pro
      50      55      60
Asp Ala Ala Pro Thr Ala Ala Asp Gly Tyr Ala Ser Asp Asp Phe Val
      65      70      75      80
Gln Gly Phe Ser Ser Ala Thr Arg Asp Arg Lys Lys Gly Val Pro Trp
      85      90      95
Thr Glu Glu Glu His Arg Arg Phe Leu Leu Gly Leu Gln Lys Leu Gly
      100     105     110
Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn Phe Val Val Ser Arg Thr
      115     120     125
Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Ile Arg Gln Ser
      130     135     140
Asn Met Thr Arg Arg Lys Arg Arg Ser Ser Leu Phe Asp Met Val Pro
      145     150     155     160
Asp Glu Ser Met Asp Leu Pro Pro Leu Pro Gly Gly Gln Glu Pro Glu
      165     170     175
Thr Gln Val Leu Asn Gln Pro Ala Leu Pro Pro Pro Lys Glu Glu Glu
      180     185     190
Glu Val Asp Ser Met Glu Ser Asp Thr Ser Ala Val Ala Glu Ser Ser
      195     200     205
Ser Ala Ser Ala Ile Met Pro Asp Asn Leu Gln Ser Thr Tyr Pro Val
      210     215     220
Ile Val Pro Ala Tyr Phe Ser Pro Phe Leu Gln Phe Ser Val Pro Phe
      225     230     235     240
Trp Gln Asn Gln Lys Asp Glu Asp Gly Pro Val Gln Glu Thr His Glu
      245     250     255
Ile Val Lys Pro Val Pro Val His Ser Lys Ser Pro Ile Asn Val Asp
      260     265     270
Glu Leu Val Gly Met Ser Lys Leu Ser Ile Gly Glu Ser Asn Gln Glu
      275     280     285
Thr Glu Ser Thr Ser Leu Ser Leu Asn Leu Val Gly Gly Gln Asn Arg
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<223> Synthetically generated oligonucleotide

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<210> 11
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27